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What is claimed is:

- 1 1. A method for communicating over a time-division duplex channel, comprising:
2 (a) receiving a first packet at a first frequency from a first slave device
3 via the channel, wherein said first packet is received beginning at a
4 first slot; and
5 (b) determining whether said first packet is a multi-slot packet, and if so,
6 transmitting a second packet to a second slave device via the channel
7 at a second frequency different from said first frequency, wherein
8 said second packet is transmitted after said first slot and prior to the
9 end of said first packet.
- 1 2. The method of claim 1, wherein said first packet comprises a header having a
2 packet type code indicative of the slot length of said first packet, and said
3 determining comprises inferring whether said first packet is a multi-slot packet
4 based on said packet type code.
- 1 3. The method of claim 1, wherein said second packet is transmitted during the first
2 available transmit slot.
- 1 4. A computer readable media embodying a method for communicating over a
2 time-division duplex channel, the method comprising:
3 (a) receiving a first packet at a first frequency from a first slave device
4 via the channel, wherein said first packet is received beginning at a
5 first slot; and
6 (b) determining whether said first packet is a multi-slot packet, and if so,
7 transmitting a second packet to a second slave device via the channel
8 at a second frequency different from said first frequency, wherein
9 said second packet is transmitted after said first slot and prior to the
10 end of said first packet.
- 1 5. The computer readable media of claim 4, wherein said first packet comprises a
2 header having a packet type code indicative of the slot length of said first packet,
3 and said determining comprises inferring whether said first packet is a multi-slot
4 packet based on said packet type code.

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- (a) defining a duplex communication channel using a plurality of time slots and a plurality of communication frequencies, each time slot having an associated communication frequency;
- (b) tuning a first transceiver to a sequence of frequencies based on the passing of time slots;
- (c) detecting a first portion of a multi-slot packet in a first time slot;
- (d) timing said first transceiver to the communication frequency associated with said first slot for a number of slots needed to correspond to said multi-slot packet; and
- (e) during said number of slots, tuning a second transceiver to communication frequencies in accordance with the defined duplex communication channel.

15. A method for communicating between a primary device and a plurality of secondary devices in a network, the method comprising:

- (a) defining a duplex communication channel using a plurality of time slots and a plurality of communication frequencies, each time slot having an associated communication frequency;
- (b) receiving a first portion of a packet from a secondary device in a first time slot at a first communication frequency; and
- (c) during a second time slot,
 - transmitting a packet using the communication frequency associated with said second time slot in the definition of the duplex communication channel, and
 - receiving a second portion of said packet from said secondary device at said first communication frequency.

16. A system comprising:

- a time-division duplex channel;
- a first slave device configured to transmit a first packet over said time-division duplex channel at a first frequency during a first time slot;
- a master device, configured to receive said first packet, to determine whether said first packet is a multi-slot packet, and if so, to transmit a second packet over said time-division duplex channel at a second frequency different from said first frequency,

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8 wherein said second packet is transmitted after said first slot and prior to the end of said
9 first packet; and

10 a second slave device configured to receive said second packet.

1 17. The system of claim 16, wherein said master device is master of a piconet that
2 includes said first slave and said second slave.

1 18. The system of claim 16, wherein said master device comprises a network access
2 point coupled to a network.

1 19. The system of claim 16, wherein said first packet comprises a header having a
2 packet type code indicative of the slot length of said first packet, and wherein
3 said master device is configured to infer whether said first packet is a multi-slot
4 packet based on said packet type code.

1 20. The system of claim 16, wherein said second packet is transmitted during the
2 first available transmit slot.

Year	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	